

ognized on the basis of chromosome morphology. *Astragalus diaphanus* should be excluded from the *Inflati* on the basis of chromosome number and morphology.

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## INNOVATIONS IN DUDLEYA

REID MORAN

As a thesis at the University of California, I prepared a revision of *Dudleya* (Crassulaceae). This revision is not yet ready for publication and may not be ready for several years. Meanwhile, two floras including *Dudleya* are nearly completed, and there is immediate need for certain names from the thesis. Therefore, one new subspecies will be described and several new combinations proposed. Abbreviations for the names of herbaria are according to Lanjouw and Stafleu (1956).

DUDLEYA ABRAMSII Rose subsp. **murina** (Eastwood) Moran, comb. nov. *Dudleya murina* Eastwood, Proc. Calif. Acad. IV. 20: 147. 1930.

DUDLEYA CYMOSA (Lemaire) Britton & Rose subsp. **gigantea** (Rose) Moran, comb. nov. *Dudleya gigantea* Rose in Britton & Rose, Bull. N.Y. Bot. Gard. 3: 23. 1903.

DUDLEYA CYMOSA (Lemaire) Britton & Rose subsp. **marcescens** Moran, subsp. nov. A subspeciebus ceteris caudicibus tenuioribus, rosulae

foliis minoribus aestate marcescentibus, inflorescentiis simplicioribus differt (fig. 1).

Caudex 1–3 cm. long, 2–7 mm. thick, often branching; rosettes 3–6 cm. wide, of 8–12 (–15) leaves; rosette leaves green, oblanceolate, acute to subobtusate,  $1\frac{1}{2}$ –3 (–4) cm. long, 5–12 mm. wide, 1–2 mm. thick; floral stems 4–10 cm. tall, their leaves deltoid-lanceolate,  $\frac{1}{2}$ – $1\frac{1}{2}$  cm. long; inflorescence of 1–2 cincinni, each 1–3 cm. long and with 2–5 flowers; pedicels erect, 5–12 mm. long; sepals deltoid, acute,  $2\frac{1}{2}$ –4 mm. long; petals bright yellow often marked with red, 10–14 mm. long,  $2\frac{1}{2}$ – $3\frac{1}{2}$  mm. wide, connate ca.  $1\frac{1}{2}$  mm.



FIG. 1. *Dudleya cymosa* (Lemaire) Britton & Rose subsp. *marcescens* Moran, subsp. nov. (type collection)  $\times 0.6$ .

Type: Shaded rocky slope by the creek, Little Sycamore Canyon, Sierra Santa Monica, Ventura County, California (near  $34^{\circ} 05'N$ ,  $118^{\circ} 57'W$ ), at about 330 meters elevation, May 28, 1948, *Moran 3078* (UC 917950).

Specimens examined: known only from the type locality, Little Sycamore Canyon, *Moran 1890* (CU), *2072* (UC), *3078* (type: UC; isotypes DS, POM).

Illustration: Des. Pl. Life 8: 70. 1936. The plant shown in this photograph is very lax, apparently as a result of cultivation.

Uhl and Moran (1953, p. 495, under *Dudleya* sp. affin. *D. ovatifolia*) reported a gametic number of 17 chromosomes in each of two collections of *D. cymosa marcescens*. Thus, like the other subspecies of *D. cymosa*, this plant is diploid with relation to the basic number for the genus.

The subsp. *marcescens* appears to be the most distinctive of the subspecies recognized here for *D. cymosa*. It is quite different from the subsp. *cymosa*, of central California, but in some respects these two are connected by the subsp. *ovatifolia*, which also occurs locally in the Sierra

Santa Monica. The subsp. *marcescens* appears to be quite distinct from the subsp. *ovatifolia*, differing in its more slender caudex, in its narrower rosette leaves, and in the withering of its rosette leaves in summer.

The only other member of the subgenus *Dudleya* known to be completely leafless in summer is *D. parva* Rose & Davidson. That also is a small diploid plant very local in Ventura County: it occurs about 8 miles north of Little Sycamore Canyon. *Dudleya parva* is quicker to lose its leaves in summer and slower to produce new ones after the first rains. It differs from *D. cymosa marcescens* further in its narrower rosette leaves, its much shorter pedicels, and its less sharply acute petals, which are pale yellow rather than bright yellow. For description and photographs of *D. parva*, see Moran, 1948.

DUDLEYA CYMOSA (Lemaire) Britton & Rose subsp. **minor** (Rose) Moran, comb. nov. *Dudleya minor* Rose in Britton & Rose, Bull. N. Y. Bot. Gard. 3: 19. 1903.

DUDLEYA CYMOSA (Lemaire) Britton & Rose subsp. **ovatifolia** (Britton) Moran, comb. nov. *Dudleya ovatifolia* Britton in Britton & Rose, Bull. N. Y. Bot. Gard. 3: 20. 1903.

DUDLEYA CYMOSA (Lemaire) Britton & Rose subsp. **setchellii** (Jepson) Moran, comb. nov. *Cotyledon laxa* (Lindley) Brewer & Watson var. *setchellii* Jepson, Fl. West. Mid. Calif. 267. 1901.

**Dudleya hassei** (Rose) Moran, comb. nov. *Stylophyllum Hassei* Rose in Britton & Rose, Bull. N. Y. Bot. Gard. 3: 35. 1903.

DUDLEYA SAXOSA (M. E. Jones) Britton & Rose subsp. **aloides** (Rose) Moran, comb. nov. *Dudleya aloides* Rose in Britton & Rose, Bull. N. Y. Bot. Gard. 3: 15. 1903.

DUDLEYA SAXOSA (M. E. Jones) Britton & Rose subsp. **collomiae** (Rose) Moran, comb. nov. *Dudleya Collomae* Rose in Morton, Des. Pl. Life 6: 68. 1934.

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#### NOTES AND NEWS

CLEISTOGAMY IN *MIMULUS DOUGLASII* GRAY. In 1938, J. T. Howell described a small cleistogamous-flowered *Mimulus* as *M. cleistogamus* (Leaf. West. Bot. 2: 79), but he later (op. cit. 3: 127-128. 1942) recognized it as merely a "growth phase" of *M. Douglasii*. My own observations indicate the frequent presence of cleistogamous flowers in *M. Douglasii*. Their presence seems to be related to absence of sufficient water in the soil. Normally these plants grow in thin soil over sandstone, and, in years when late winter and early spring rains come often enough, they produce large open flowers. In some situations, for example, where the soil is extremely thin on